REMARKS

Claims 1, 3 and 5 are pending. By this Amendment, claim 1 is amended and claim 4 is canceled without prejudice or disclaimer. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claims 1 and 3-5 were rejected under 35 U.S.C. § 102(b) over Bulgrin (U.S. Patent No. 5,997,778). The rejection is respectfully traversed.

Claim 1, as amended to include the features of canceled claim 4, recites, *inter alia*, that adjustment of the servo delay is made for each of low-velocity section, high-velocity section, and deceleration section of a shot of the injection operation.

With respect to the features recited in canceled claim 4, the Examiner alleges on page 3, lines 11-14, that Bulgrin disclose these features in column 21, lines 19-35. It is respectfully submitted that Bulgrin do not disclose these features, either in column 21, lines 19-35, or anywhere in his disclosure.

Bulgrin discloses that a finite impulse response (FIR) filter 88 uses current real time data with respect to past observed data to determine a distance that the ram 14 traveled attributed to the response latency or lag of the entire system. See column 15, lines 1-4. As further disclosed in column 15, the rate x', i.e. velocity, at which the ram 14 travels is defined as $(x_1-x_0)/(t_1-t_0)$, wherein x_1 is the current position of the ram 14, x_0 is the previous position of the ram 14 at time t_0 and t_1 is the current time at which the current position of the ram 14 is being sensed. Bulgrin goes on in column 15 to describe how to calculate the predicted position $x_{a'}$ at the advanced time Δt corresponding to the lag time (such as the response latency).

Bulgrin then goes on in column 21, lines 19-35, to disclose that the advanced time Δt is applied depending on the use of the FIR filter 88. The delay time in processing the signal through the programmable logic controller (PLC) 34 is applied to correct the real time velocity signals sensed by the ram travel position sensor 35. In addition, the predictive signal sensor causes a delay time in the response of the proportioning valve 25 and a second set of calculations are performed for the valve delay. Even further, there is a delay attributed to the momentum of the ram 14 so a third set of calculations are performed. Therefore, one FIR filter is used to determine the real time velocity signal and three FIR filters (PLC delay, valve delay, and system momentum delay) are used to determine the predictive position signal.

Bulgrin discloses using FIR filters to determine the real time velocity of the ram 14 and a predictive position of the ram 14, taking into account delays caused by the PLC 34, the delay of

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the valve 25, and the momentum of the ram 14. Bulgrin does not disclose or suggest adjustment of the servo delay is made for each of low-velocity section, high-velocity section, and deceleration section of a shot of the injection operation, as recited in claim 1. Accordingly, Bulgrin cannot anticipate or render obvious claim 1.

Claims 3 and 5 recite additional features of the invention and are allowance for the same reasons discussed above with respect to claim 1 and for the additional features recited therein.
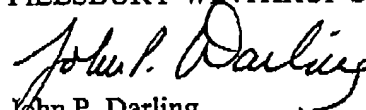
Reconsideration and withdrawal of the rejection of claims 1 and 3-5 over Bulgrin are respectfully requested.

In view of the above remarks, Applicants respectfully submit that all of the claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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